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ON THE SABULODES (LEP. GEOMETRIDAE) OF THE MONASTICA DOGN. GROUP.

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THE delimitation and sectionizing of the genus *Sabulodes* Guen. (*Ur. et Phal.*, ix. 42, 1858) on any acceptable phylogenetic system would be an enormous undertaking, since it would entail an examination not only of the very many species which have actually been placed here by our recent writers on the Neotropical fauna, but also of a mass of evidently more or less nearly related "genera" which, so far as I can yet see, differ therefrom in little or nothing except wing-shape or scheme of markings. The purpose of the present article is not taxonomic in any broad sense, but merely elucidatory of a very small and apparently "natural" section which has occasionally been referred to under the unpublished name of *Cosmophyga*. I have no intention of validating that name unless, or until, some exigency of reclassification arises.

Whether *S. privataria* Walk. (1862, as *Laudosia*) = *aliculata* Feld. (1875, as *Laudosia* ?) (Venezuela), with its subspecies *molorcharia* Ob. (1911) (Bolivia and Peru) should be regarded as strictly a member of this group is somewhat uncertain; the structure, the underside and the markings of the forewing above, as well as the wing-shape, show a close resemblance, but the unmarked white or whitish hindwing, with only the termen and abdominal region sharing the coloration of the forewing, speaks for a different resting posture. In any case, this character and the whitish *distal* edging of the antemedian line of the forewing differentiate it at a glance from the *monastica* group, sens. str.

Dognin (*Le Nat.*, xv. 159, 1893, as *Laudosia*) founded *monastica* on material from Loja. In a later reference (*Ann. Soc. Ent. Belg.*, lvi. 138, 1912) he admitted that he had regarded the group then under consideration as a single variable species and—somewhat remarkably in view of the accuracy of his eye for specific and racial distinctions and his zeal for new forms—had not regarded No. 2 in the present memoir as worthy of a separate name. More curiously still, there is evidence in my collection that he confused No. 3 with *thermidora* Th.-Mieg (1894, as *Epione* ?), for he has labelled a Torné ♂ which I submitted to him for determination some 25 years ago "*Periclina thermidora* Th.-M."; and this notwithstanding that he had also given me a specimen of the very distinct *thermidora* (vera), from the type locality Loja, labelled as "*Periclina thermidora*, absolutely identical to type." I can only conclude, therefore, that he had given

no really close attention to the group. It is hardly necessary to add that the present revision is not penned in any carping spirit; no one who has attempted any work at the overwhelmingly rich Geometrid fauna of tropical South America will need to be reminded that no single student, however diligent, can compass the whole with thoroughness.

The following simple key will, I trust, elucidate the forms at present known to me. The appended descriptions will add the necessary detail.

KEY TO THE SPECIES.

- | | |
|---|-------------------------------|
| 1. Forewing relatively elongate anteriorly, costal edge not white | 2 |
| Forewing relatively shorter, costal edge pure white | 3 |
| 2. Forewing approaching fawn, costal edge brighter but hardly paler | sp. 1. <i>monastica</i> Dogn. |
| Forewing much darker (closely irrorated with bistre), costal edge pale buff | sp. 2. |
| 3. Moderately dark, lines distinct, finely (but as a rule distinctly) white-edged | sp. 3. <i>mosticana</i> Dogn. |
| Very dark, lines indistinct, not appreciably white-edged | sp. 4 (Peru). |

1. *Sabulodes monastica* (Dogn.).

Laudosia monastica Dogn., *Le Nat.*, xv. 159 (1893) (Loja).

Sabulodes monasticaria (pars typ.) Oberth., *Et. Léop. Comp.*, v. (2), p. 44 (1911) (Loja) (err. transcr. pro *monastica*).

Cosmophyga (Laudosia) monastica Dogn., *Ann. Soc. Ent. Belg.*, lvi. p. 138 (1912).

Only known to me from Loja, where ♂♂ are apparently common. They have been freely distributed by their author and do not need much further elucidation. The antemedian line of the forewing is more acutely angled in the cell than in Nos. 2-4 and in consequence generally pursues thereafter a course much more nearly parallel with the postmedian. In rare cases the angulation is maintained by a still more oblique course from costa to cell and its subsequent direction can show more approach to that of No. 2. The underside is generally paler than the others (except occasionally No. 3) and has the apical patch of the forewing and the incomplete outer band of the hindwing brighter brown, sharply differentiated.

2. *Sabulodes cosmatina* sp. n.

Sabulodes monasticaria part., Oberth., *Et. Léop. Comp.*, v. (2), p. 44, t. xcii, f. 904 (1911) (Chachapoyas, Amazonas) (err. transcr. et det.).

Cosmophyga (Laudosia) monastica var. *monasticaria* Dogn., *Ann. Soc. Ent. Belg.*, lvi. 138 (1912) (nom. invalid., ex Oberth.).

"*Cosmophyga mosticana* Dogn.," Warr., M.S. (in coll. Tring Mus. (err. det.) (E. Peru).

Closely related to *monastica*, possibly a race, though its distribution (Colombia, Peru) and some well-appreciable differences in the genitalia render this improbable. Similar in size and shape. Fillet (in sens. Meyr.) and shaft of antenna with some whiter scaling. Body and wings darker, more fuscous.—*Forewing* with costal edge pale buff; cell-mark less distinct than in *monastica* but more elongate; antemedian line more bluntly angled in cell, thereafter, more or less markedly approaching the postmedian; postmedian more slender

than in *monastica*; subterminal dark vein-dashes indicated, but only distinct in the least dark forms.—*Hindwing* with corresponding postmedian.—Underside with rather heavy grey irroration, the distal cloudings duller than in *monastica*, generally less sharply defined.

Genitalia (δ) very similar to those of *monastica*; valve with a ridge-like process proximally to its middle, which is wanting in *monastica*; aedoeagus with a thorn-like projection much less near to its extremity than the corresponding one in *monastica*, and with an additional prominence more proximally.

Colombia: Torné, Cauca Valley. E. Peru: Chachapoyas (Amazonas), Huancabamba (Cerro de Pasco), Oconeque, Agualani and Limbani (Carabaya), type from Huancabamba, in Tring Mus.

The forms from Torné and Chachapoyas seem to be a trifle less dark than those which I have treated as typical, but I am not prepared to give them a sub-specific name unless the difference should prove constant in much more extensive material.

The name (or misnomer) *monasticaria*, tentatively adopted by Dognin, is certainly invalid, a mere result of Oberthür's nomenclatorial vagaries. Whether an oversight or intention, the suffix *-aria* is demonstrably not intended to indicate a new name¹; his statement is quite explicit: "je conscrve le nom sous lequel j'ai reçu un échantillon de Loja (Equateur)" (italics mine), his appropriation of the name ("*monasticaria*, *Obthr.*") is an outcrop of the inevitable "*pas de bonne figure*," etc. (compare "*mimulata*, *Obthr.*" on p. 43, which refers to absolutely typical *mimula* Th.-Mieg) and the figuring of an inaccurate *monasticaria* arises from his having (like Dognin) "lumped" our Nos. 1 and 2. A new name and description have consequently been found necessary.

3. *Sabulodes mosticana* Dogn.

Cirsodes mosticana Dogn., *Ann. Soc. Ent. Belg.*, xlv. p. 226 (1900) (Loja).

δ ♀, 39–43 mm. (1 ♀ 48 mm.). Smaller than *cosmatina*, ground-colour similar, perhaps on an average scarcely so dark.—*Forewing* a little broader, with costa relatively shorter, termen slightly more convex in middle; costal edge pure white; markings nearly as in *cosmatina*, the antemedian generally still less bent near costa, the long straight part of its course more oblique, reaching hindmargin nearer to postmedian; pale line at base of fringe less conspicuous than in *cosmatina*.—*Hindwing* generally slightly more bent at R³ than in *cosmatina*; otherwise very similar; the line generally a trifle more distal, at least at hindmargin, and less rigidly straight; fringe as on forewing.—Underside coloured about as in *cosmatina*, the distal cloudings generally ampler; weak traces of a postmedian line at times visible.

Genitalia (δ) with valve considerably narrower at tip than in the two preceding, its end ventrally rounded off gently instead of prominent; a process from base of uncus characteristic of the group (? *socius*), much longer than in the two preceding.

Colombia, at considerable altitudes: Paso del Quindiu, 2,500 m., Monte Tolima, 2,700 to 3,200 m., Pacho, 2,200 m. Type form from Loja only known to me from the description, perhaps a separate race.

¹ Following Guenéé, he makes every Geometrid name in this memoir end in *-ata* or *-aria*, with the sole exception of a few dedicatory names, such as *schunckeii*; thus *crocoptera* Koll. becomes *crocoptera*, *clisthena* Stoll in Crun. *clisthenata*, and so on.

As f. *torneënsis*, form. nov., I describe 3 ♂♂ of a decidedly brown tone (inclining towards Verona brown), the white costal edge of the forewing narrower, the white edging to the lines very slight, grisescens, the underside also somewhat more suffused with brown and with the apical cloud of the forewing not quite as broad as in high-altitude *mosticana*.

Torné, Cauca Valley, perhaps a local race or an "ab. loc." It gives somewhat the impression of a different species, but no difference is discoverable in the genitalia.

From the variable *S. thermidora* (Th.-Mieg, 1894), to the darkest aberrations of which it bears a good deal of resemblance, *mosticana* f. *torneënsis* can easily be distinguished by the whiter antenna, white costal edge, sharper lines, with hardly even a trace of paler edging, and different underside (apical cloud weak or obsolescent, distal shade of hindwing very weak or wanting, postmedian line of forewing developed, at least anteriorly).

4. *Sabulodes socoides* sp. n.

Size and shape about as in *mosticana*, which it perhaps represents in Peru; build rather more robust. Darker, the markings weaker, the lines practically without any pale edging, the antemedian almost obsolete anteriorly. Underside with the distal cloudings less broad than in the typical high-altitude *mosticana*, less brown-tinged than in its form *torneënsis*.

Genitalia (♂) with the valve in some measure intermediate between those of *monastica* and *mosticana* but nearer to the former in its approximately uniform breadth throughout and prominence at the distal ventral extremity; "socii" longer and broader than in *monastica* but not so long as in *mosticana*; aedoeagus stouter than in *cosmatina*, its nearest Huancabamba relative.

E. Peru: Huancabamba, Cerro de Pasco, 4 ♂♂, the type in coll. Tring Mus.; Cushi, Huanuco, 1 ♂ in that collection; Pozuzo, Huanuco, 1 ♂ in coll. Brit. Mus.
